

What is claimed is:

1. A method for treating a patient infected with any contaminant wherein the contaminant is other than a human hepatitis C virus, an HIV virus or a human herpes virus, comprising raising the core temperature of the patient and then returning the core temperature of the patient to normal at least one time, wherein the core temperature is raised to a temperature range and a duration sufficient to reduce the patient's contaminant level by about 30 percent or more about one month after the core temperature has been raised and returned to normal said at least one time.
2. The method of claim 1, including wherein the patient's contaminant level is determined at least once after the core temperature has been raised and returned to normal said at least one time.
3. The method of claim 1, including wherein the core temperature of the patient is raised and returned to normal two or more times.
4. The method of claim 1, including wherein the core temperature is raised by circulating the patient's blood from the patient, through an extracorporeal blood flow circuit, and back to the patient, wherein the blood returned to the patient has been heated within the blood flow circuit to an elevated temperature range.
5. The method of claim 1, including wherein the core temperature is raised to a temperature range of from about 38°C to about 44°C.
6. The method of claim 5, including wherein the core temperature is raised for a period of from about 2 minutes to about sixteen hours.
7. The method of claim 5, including wherein the core temperature is raised for a period of from about one-half to about three hours.

8. The method of claim 1, including wherein the patient's contaminant level is determined at least once before the core temperature has been raised said at least one time.

9. The method of claim 1, including wherein the patient's contaminant level is reduced by about 50 percent or more one month after the core temperature has been raised and returned to normal said at least one time.

10. The method of claim 1, including wherein the patient's contaminant level is reduced by about 75 percent or more one month after the core temperature has been raised and returned to normal said at least one time.

11. The method of claim 1, including wherein the patient's contaminant level is reduced by about 90 percent or more one month after the core temperature has been raised and returned to normal said at least one time.

12. The method of claim 1, including wherein the patient's contaminant level is reduced by about 95 percent or more one month after the core temperature has been raised and returned to normal said at least one time.

13. The method of claim 1, including wherein the contaminant level is reduced to less than the sensitivity level of the current state of the art detection method one month after the core temperature has been raised and returned to normal said at least one time.

14. The method of claim 1, including wherein said contaminant is selected from the group consisting of a biological warfare agent, a chemical warfare agent, a benign tumor, a malignant tumor, a mutated cell, a genetically modified biological warfare agent, and any prion, and any combination thereof.

15. The method of claim 1, including wherein said contaminant has caused an acute, latent, or chronic equine herpes virus infection.

16. The method of claim 1, including wherein said contaminant has caused an equine encephalitis infection in the patient.
17. The method of claim 1, including wherein said contaminant has caused a West Nile Virus infection in the patient.
18. The method of claim 1, further comprising treating the patient with a pharmaceutical or other agent wherein said pharmaceutical or other agent is indicated for a contaminant or used to boost the patient's immune system.
19. The method of claim 18, including wherein said pharmaceutical or other agent is administered before raising the core temperature of the patient said at least one time.
20. The method of claim 18, including wherein said pharmaceutical or other agent is administered while the core temperature of the patient is raised.
21. The method of claim 18, including wherein said pharmaceutical or other agent is administered after the core temperature of the patient has been raised and returned to normal said at least one time.
22. The method of claim 18, including wherein said pharmaceutical or other agent is selected from the group consisting of interferons, protease inhibitors, cytokines and chemotherapeutic agents, and combinations thereof.
23. The method of claim 18, including wherein said pharmaceutical or other agent is selected from the group consisting of ribavirin, lamivudine, alpha interferon, doxorubicin, liposomal doxorubicin, interferon alfacon-1, interferon alfa-2a, interferon alfa-2b, interferon-alfa-n1, thymosin alpha-1, interleukin-2, interferon alpha-n3, ketoprofen, interferon beta-1a, interferon gamma-1b, interleukin- 12, histamine dihydrochloride, thymalfasin, zidovudine, didanosine, zalcitabine, stavudine, abacavar, nevirapine, delaviridine, efavirenz, ritonavir, indinavir, nelfinavir, saquinavir, amprenavir, doxorubicin, aciclovir, cidofovir, famciclovir, foscarnet,

ganciclovir, idoxuridine, trifluorothymidine, valaciclovir, and vidarabine, and combinations thereof.

24. The method of claim 1, including wherein said contaminant causes an acute infection, a latent infection, or a chronic infection.

25. The method of claim 1, including wherein the patient is infected with a secondary contaminant.

26. The method of claim 25, including wherein said secondary contaminant is selected from the group consisting of a virus, spirochete, a bacterium, any heat labile virus, any heat labile spirochete, any heat labile bacterium, any heat labile parasite, any heat labile benign or malignant cancer cell, any prion, and any chemical used as a warfare agent.

27. The method of claim 25, including wherein said secondary contaminant is a spirochete selected from the group consisting of *Treponema pallidum*, *Treponema pertenu*, *Treponema carateum*, *Treponema pallidum endemicum*, *Borrelia burgdorferi*, *Borrelia hermsii*, and *Leptospira interrogans*.

28. The method of claim 25, including wherein said secondary contaminant is a spirochete selected from the group consisting of spirochetes of the genus *treponema*, spirochetes of the genus *borrelia*, and spirochetes of the genus *leptospira*.

29. The method of claim 1, including wherein said contaminant is an organism.

30. The method of claim 29, including wherein said contaminant is selected from the group consisting of any genetically modified virus, any spirochete, any bacterium, any genetically modified spirochete, any genetically modified bacterium, or any virus that is not a Hepatitis C virus, a human herpes virus, or an HIV virus.

31. The method of claim 29, including wherein said contaminant is a spirochete selected from the group consisting of spirochetes of the genus *trepanema*, spirochetes of the genus *borrelia*, and spirochetes of the genus *leptospira*.

32. The method of claim 29, including wherein said contaminant is a spirochete selected from the group consisting of *Treponema pallidum*, *Treponema pertenue*, *Treponema carateum*, *Treponema pallidum endemicum*, *Barrelia burgdorferi*, *Borrelia hermsii* and *Leptospira interrogans*.

33. The method of claim 29, including wherein said contaminant is any parasite, any genetically modified parasite, any malignant or benign cancer cell, any fungus type, any genetically modified fungus type, any yeast type, or any genetically modified yeast type.

34. The method of claim 1, including wherein the patient has received any treatment available for a condition arising from the presence of said contaminant and has not responded to said treatment.

35. The method of claim 1, including wherein the patient has received any treatment available for a condition arising from the presence of said contaminant and has marginally responded to said treatment.

36. The method of claim 1, including wherein the patient has received any treatment for a condition arising from the presence of said contaminant and has responded to said treatment, but has not been able to resolve said condition.

37. The method of claim 1, including wherein said contaminant has an identity that is unknown at the time of initiation of treatment.

38. A method for treating a patient infected with any contaminant wherein the contaminant is other than a human hepatitis C virus, an HIV virus, or a human herpes virus, comprising raising the core temperature of the patient and then returning the core temperature of the patient to

normal at least one time, wherein the core temperature is raised to a temperature range and a duration sufficient to reduce the patient's contaminant level by about 30 percent or more up to three months after the core temperature has been raised and returned to normal said at least one time.

39. The method of claim 38, including wherein the patient's contaminant level is determined at least once after the core temperature has been raised and returned to normal said at least one time.

40. The method of claim 38, including wherein the core temperature of the patient is raised and returned to normal two or more times.

41. The method of claim 38, including wherein the core temperature is raised by circulating the patient's blood from the patient, through an extracorporeal blood flow circuit, and back to the patient, wherein the blood returned to the patient has been heated within the blood flow circuit to an elevated temperature range.

42. The method of claim 38, including wherein the core temperature is raised to a temperature range of from about 38°C to about 44°C.

43. The method of claim 42, including wherein the core temperature is raised for a period of from about 2 minutes to about sixteen hours.

44. The method of claim 42, including wherein the core temperature is raised for a period of from about one-half to about three hours.

45. The method of claim 38, including wherein the patient's contaminant level is determined at least once before the core temperature has been raised said at least one time.

46. The method of claim 38, including wherein the patient's contaminant level is reduced by about 50 percent or more up to three months after the core temperature has been raised and returned to normal said at least one time.

47. The method of claim 38, including wherein the patient's contaminant level is reduced by about 75 percent or more up to three months after the core temperature has been raised and returned to normal said at least one time.

48. The method of claim 38, including wherein the patient's contaminant level is reduced by about 90 percent or more up to three months after the core temperature has been raised and returned to normal said at least one time.

49. The method of claim 38, including wherein the patient's contaminant level is reduced by about 95 percent or more up to three months after the core temperature has been raised and returned to normal said at least one time.

50. The method of claim 38, including wherein the contaminant level is reduced to less than the sensitivity level of the current state of the art detection method up to three months after the core temperature has been raised and returned to normal said at least one time.

51. The method of claim 38, including wherein said contaminant is selected from the group consisting of a biological warfare agent, a chemical warfare agent, a benign tumor, a malignant tumor, a mutated cell, a genetically modified biological warfare agent, and any prion, and any combination thereof.

52. The method of claim 38, including wherein said contaminant has caused an acute, latent, or chronic equine herpes virus infection.

53. The method of claim 38, including wherein said contaminant has caused an equine encephalitis infection in the patient.

54. The method of claim 38, including wherein said contaminant has caused a West Nile Virus infection in the patient.

55. The method of claim 38, further comprising treating the patient with a pharmaceutical or other agent wherein said pharmaceutical or other agent is indicated for a contaminant or used to boost the patient's immune system.

56. The method of claim 55, including wherein said pharmaceutical or other agent is administered before raising the core temperature of the patient said at least one time.

57. The method of claim 55, including wherein said pharmaceutical or other agent is administered while the core temperature of the patient is raised.

58. The method of claim 55, including wherein said pharmaceutical or other agent is administered after the core temperature of the patient has been raised and returned to normal said at least one time.

59. The method of claim 55, including wherein said pharmaceutical or other agent is selected from the group consisting of interferons, protease inhibitors, cytokines and chemotherapeutic agents, and combinations thereof.

60. The method of claim 55, including wherein said pharmaceutical or other agent is selected from the group consisting of ribavirin, lamivudine, alpha interferon, doxorubicin, liposomal doxorubicin, interferon alfacon-1, interferon alfa-2a, interferon alfa-2b, interferon-alfa-n1, thymosin alpha-1, interleukin-2, interferon alpha-n3, ketoprofen, interferon beta-1a, interferon gamma-1b, interleukin- 12, histamine dihydrochloride, thymalfasin, zidovudine, didanosine, zalcitabine, stavudine, abacavar, nevirapine, delaviridine, efavirenz, ritonavir, indinavir, nelfinavir, saquinavir, amprenavir, doxorubicin, aciclovir, cidofovir, famciclovir, foscarnet, ganciclovir, idoxuridine, trifluorothymidine, valaciclovir, and vidarabine, and combinations thereof.



61. The method of claim 38, including wherein said contaminant causes an acute infection, a latent infection, or a chronic infection.

62. The method of claim 38, including wherein the patient is infected with a secondary contaminant.

63. The method of claim 62, including wherein said secondary contaminant selected from the group consisting of a virus, spirochete, bacterium, any heat labile virus, any heat labile spirochete, any heat labile bacterium, any heat labile parasite, any heat labile benign or malignant cancer cell, any prion, and any chemical used as a warfare agent.

64. The method of claim 62, including wherein said secondary contaminant is a spirochete selected from the group consisting of *Treponema pallidum*, *Treponema pertenuis*, *Treponema carateum*, *Treponema pallidum endemicum*, *Borrelia burgdorferi*, *Borrelia hermsii*, and *Leptospira interrogans*.

65. The method of claim 62, including wherein said secondary contaminant is a spirochete selected from the group consisting of spirochetes of the genus *treponema*, spirochetes of the genus *borrelia*, and spirochetes of the genus *leptospira*.

66. The method of claim 38, including wherein said contaminant is an organism.

67. The method of claim 66, including wherein said contaminant is any genetically modified virus, any spirochete, any bacterium, any genetically modified spirochete, any genetically modified bacterium, or any virus that is not the human Hepatitis C virus, the HIV virus, or the human herpes virus.

68. The method of claim 66, including wherein said contaminant is a spirochete selected from the group consisting of spirochetes of the genus *treponema*, spirochetes of the genus *borrelia*, and spirochetes of the genus *leptospira*.

69. The method of claim 66, including wherein said contaminant is a spirochete selected from the group consisting of *Treponema pallidum*, *Treponema pertenue*, *Treponema carateum*, *Treponema pallidum endemicum*, *Borrelia burgdorferi*, *Borrelia hermsii* and *Leptospira interrogans*.

70. The method of claim 61, including wherein said contaminant is any parasite, any genetically modified parasite, any malignant or benign cancer cell, any fungus type, any genetically modified fungus type, any yeast type, or any genetically modified yeast type.

71. The method of claim 38, including wherein the patient has received any treatment available for a condition arising from the presence of said contaminant and has not responded to said treatment.

72. The method of claim 38, including wherein the patient has received any treatment available for a condition arising from the presence of said contaminant and has marginally responded to said treatment.

73. The method of claim 38, including wherein the patient has received any treatment for a condition arising from the presence of said contaminant and has responded to said treatment, but has not been able to resolve said condition.

74. The method of claim 38, including wherein said contaminant has an identity that is unknown at the beginning of treatment.

75. A method for treating a patient infected with any contaminant wherein the contaminant is other than the human hepatitis C virus, the HIV virus or the human herpes virus, comprising raising the core temperature of the patient and then returning the core temperature of the patient to normal at least one time, wherein the core temperature is raised to a temperature range and a duration sufficient to reduce the patient's contaminant level then returned to normal at least one time.